

# CLIMATE CHANGE

MURDER  
UNDER THE  
MICROSCOPE

These activities will give you and your group some valuable information which might help you when solving the crime.



Look for and collect articles about climate change. These will show how widespread climate change is and will also provide differing opinions about its causes and severity.



Talk with your group to consider:

- What is the difference between climate and weather?
- What evidence is there that climate change is occurring?



[Dried Creek Bed](#)

[JulieJordanScott](#)

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Dry Creek Bed by David Wagner



- What do the pictures above indicate about climate change?
- What human activities contribute to climate change?
- What are some of the effects of climate change?



# How might plants and animals be affected?

Talk with your group and put these effects into categories.

e.g.

- increasing temperature
- increasing rainfall
- decreasing rainfall
- rising sea levels



Bradley Kanaris, Getty Images (73289577), 2007

Climate change	Effect
Increasing temperature	Warmer water <ul style="list-style-type: none"><li>- increased plant growth</li><li>- some aquatic animals will not reproduce successfully</li></ul>
Increasing rainfall	Flooding



# Research



Using the internet, newspapers and other sources of information, confirm the accuracy of your groups' brainstorming results.

Create a table using the headings above or appropriate headings of your own. Select one type of extreme event that could be linked to each effect and determine the impact it might have on animals and plants.

An example is:

Increasing rainfall → storm surges → what would be the impact on plants and animals?

Find out about the Earth's carbon cycle. How is the carbon cycle changing?

<http://www.abc.net.au/science/articles/2012/02/29/3442312.htm>

## Melting ice, ecosystems and groundwater

1. The experiments below look at one aspect of climate change, the melting of the ice caps at the poles. When you have completed the experiments talk to your team about what you have discovered.

[http://www.nrw.qld.gov.au/waterwise/resources/pdf/activities/6\\_9meltingice.pdf](http://www.nrw.qld.gov.au/waterwise/resources/pdf/activities/6_9meltingice.pdf)

2. Organise a debate within your class connected to the climate change controversy. Possible topics might be:
  - That desalination plants are essential to the future of Australia.
  - That climate change is man-made.
  - That climate change is a myth.



## Extension activities

1. Consider an ecosystem in your own area. Describe the ecosystem. Perhaps you can photograph it. What might be the impacts on this ecosystem if temperature increased and rainfall decreased?
2. Conduct the experiment described below. Be ready to explain to the rest of your team why groundwater supplies are important and how you think groundwater supplies are likely to be affected by climate change.

[http://www.nrw.qld.gov.au/waterwise/resources/pdf/activities/6\\_9whereraingo.pdf](http://www.nrw.qld.gov.au/waterwise/resources/pdf/activities/6_9whereraingo.pdf)

Information for secondary students:

<http://earthsci.org/education/teacher/basicgeol/groundwa/groundwa.html#ChangesintheGroundwaterSystem>

<http://www.ga.gov.au/groundwater/groundwater-in-australia.html>

## Sharing information



What have you found out that might help you understand the crime? Share this information with the other groups.

Find a way to explain the issues related to climate change and show how climate change can have a major affect on the health of our planet.

Useful links:

<http://www.climatechangematters.net.au/resources.htm>

[www.epa.vic.gov.au/climate-change/default.asp](http://www.epa.vic.gov.au/climate-change/default.asp)

[www.nationalwaterweek.org.au/educational-activities.php](http://www.nationalwaterweek.org.au/educational-activities.php)

[http://www.ozcoasts.org.au/indicators/greenhouse\\_effect.jsp](http://www.ozcoasts.org.au/indicators/greenhouse_effect.jsp)

<http://lwa.gov.au/files/products/managing-climate-variability/pn22195/pn22195.pdf>

<http://www.csiro.au/science/Changing-Climate>

<http://www.ozcoasts.gov.au/climate/index.jsp>

[http://wwf.org.au/our\\_work/people\\_and\\_the\\_environment/global\\_warming\\_and\\_climate\\_change/](http://wwf.org.au/our_work/people_and_the_environment/global_warming_and_climate_change/)